

REMARKS

Favorable reconsideration of this application is respectfully requested.

Claims 138-197 are present in this application. New claims 154-197 are supported by the specification and no question of introduction of new matter is believed raised. Claims 138-145 stand rejected under 35 U.S.C. § 102(b) over U.S. 5,503,704 (Bower et al).

Objections were made to minor informalities in claims 138-153. The claims are amended to provide additional language to define the various element and surfaces. Claims 146-153 were found to be allowable if rewritten in independent form. The Applicants greatly appreciate the finding of claims 146-153 to recite patentable subject matter.

The Office Action on page 3 refers to a 35 USC § 112, second paragraph, rejection of claim 149. However, the particular basis for this rejection is not provided, other than the objection to the minor informalities. The applicants have amended claim 149 to address this informality. It is believed that claim 149, as amended, is in full compliance with 35 U.S.C. § 112, second paragraph.

Claims 138-145 were rejected based upon Bower et al. disclosing a method wherein “exposing, cleaning and terminating steps, are performed in order” on the second surface of the substrate prior to the bonding step, referring to column 4, lines 45-67 and column 5, lines 12-41. However, these portions of Bower et al. refer to Figure 1 which clearly shows that the plasma step is the last step in the method prior to bonding.

In particular, the RCA clean in step 15a and acid clean in step 25 occur prior to the ammonia plasma activation of step 40a. Bower et al. does not describe any further processing performed on the surfaces after the ammonia plasma activation. Figure 1 shows and column 5, beginning at line 13, describes that step 40a occurs after step 30 and preceding steps, producing a material surface “both hydrophilic and reactive for low temperature direct bonding.” The material surface is then brought in physical contact with a second surface for

bonding, as described beginning at line 23 of column 5. There is clearly no disclosure of any cleaning step after the plasma activation prior to bonding. Accordingly, as Bower et al. does not disclose the method as recited in claim 138, withdrawal of the rejection is required, and is therefore respectfully requested.

It is respectfully submitted that the present application is in condition for allowance and a favorable decision to that effect is respectfully requested.

Respectfully submitted,

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